



# Analytical Laboratory

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13339 Hagers Ferry Road  
Huntersville, NC 28078-7929  
McGuire Nuclear Complex - MG03A2  
Phone: 980-875-5245 Fax: 980-875-4349

## Order Summary Report

**Order Number:** J13110266

Project Name: NPDES - QUARTERLY

Customer Name(s): Michael Byrd

Customer Address: 11021 BROWER RD.

NORTH BEND, OH 45052

Lab Contact: Mary Ann Ogle

Phone: 980-875-5274

**Report Authorized By:**  
(Signature)

\_\_\_\_\_  
Mary Ann Ogle

**Date:**

12/11/2013

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### Program Comments:

Please contact the Program Manager (Mary Ann Ogle) with any questions regarding this report.

### Data Flags & Calculations:

Any analytical tests or individual analytes within a test flagged with a Qualifier indicate a deviation from the method quality system or quality control requirement. The qualifier description is found at the end of the Certificate of Analysis (sample results) under the qualifiers heading. All results are reported on a dry weight basis unless otherwise noted. Subcontracted data included on the Duke Certificate of Analysis is to be used as information only. Certified vendor results can be found in the subcontracted lab final report. Duke Energy Analytical Laboratory subcontracts analyses to other vendor laboratories that have been qualified by Duke Energy to perform these analyses except where noted.

### Data Package:

This data package includes analytical results that are applicable only to the samples described in this narrative. An estimation of the uncertainty of measurement for the results in the report is available upon request. This report shall not be reproduced, except in full, without the written consent of the Analytical Laboratory. Please contact the Analytical laboratory with any questions. The order of individual sections within this report is as follows:

*Job Summary Report, Sample Identification, Technical Validation of Data Package, Analytical Laboratory Certificate of Analysis, Analytical Laboratory QC Reports, Sub-contracted Laboratory Results, Customer Specific Data Sheets, Reports & Documentation, Customer Database Entries, Test Case Narratives, Chain of Custody (COC)*

### Certification:

The Analytical Laboratory holds the following State Certifications : North Carolina (DENR) Certificate #248, South Carolina (DHEC) Laboratory ID # 99005. Contact the Analytical Laboratory for definitive information about the certification status of specific methods.

Sample ID's & Descriptions:

Sample ID	Plant/Station	Collection Date and Time	Collected By	Sample Description
2013027953	MIAMI-FORT	03-Dec-13 8:45 AM	Mark Harper	OUTFALL 002
2013027954	MIAMI-FORT	03-Dec-13 9:05 AM	Mark Harper	OUTFALL 608
2 Total Samples				

## Technical Validation Review

### Checklist:

COC and .pdf report are in agreement with sample totals and analyses (compliance programs and procedures).

☒ Yes☐ No

All Results are less than the laboratory reporting limits.

☐ Yes☒ No

All laboratory QA/QC requirements are acceptable.

☒ Yes☐ No

### Report Sections Included:

☒ Job Summary Report☒ Sample Identification☒ Technical Validation of Data Package☒ Analytical Laboratory Certificate of Analysis☐ Analytical Laboratory QC Report☐ Sub-contracted Laboratory Results☐ Customer Specific Data Sheets, Reports, & Documentation☒ Customer Database Entries☒ Chain of Custody☐ Electronic Data Deliverable (EDD) Sent Separately

Reviewed By: DBA Account

Date: 12/11/2013

# Certificate of Laboratory Analysis

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*This report shall not be reproduced, except in full.***Order # J13110266**

Site: OUTFALL 002

Collection Date: 03-Dec-13 8:45 AM

**Sample #: 2013027953**

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<b><u>AMMONIA (COLORIMETRIC)</u></b>								
Ammonia (Colorimetric)	< 0.02	mg-N/L		0.02	1	EPA 350.1	12/05/2013 13:43	TLINN
<b><u>TOTAL KJELDAHL NITROGEN (COLORIMETRIC)</u></b>								
Total Kjeldahl Nitrogen (Colorimetric)	0.84	mg-N/L		0.15	1	EPA 351.2	12/10/2013 11:32	BGN9034
<b><u>TOTAL DISSOLVED SOLIDS</u></b>								
TDS	890	mg/L		25	1	SM2540C	12/09/2013 11:21	DSBAKE1

Site: OUTFALL 608

Collection Date: 03-Dec-13 9:05 AM

**Sample #: 2013027954**

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<b><u>ALKALINITY (FIXED END POINT 4.5)</u></b>								
Alkalinity (mg/L CaCO3)	1500	mg/L (CaCO3)		0.1	1	SM2320B	12/06/2013 10:07	TJA7067
<b><u>INORGANIC IONS BY IC</u></b>								
Chloride	7000	mg/L		100	1000	EPA 300.0	12/05/2013 17:37	JAHERMA
Fluoride	39	mg/L		10	100	EPA 300.0	12/05/2013 17:37	JAHERMA
Sulfate	14000	mg/L		200	2000	EPA 300.0	12/05/2013 17:37	JAHERMA
<b><u>TOTAL METALS BY ICP</u></b>								
Boron (B)	540	mg/L		2.5	50	EPA 200.7	12/10/2013 13:40	MHH7131
Iron (Fe)	0.094	mg/L		0.01	1	EPA 200.7	12/10/2013 13:40	MHH7131
Manganese (Mn)	2.18	mg/L		0.005	1	EPA 200.7	12/10/2013 13:40	MHH7131
<b><u>TOTAL RECOVERABLE METALS BY ICP-MS</u></b>								
Arsenic (As)	< 20	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
Barium (Ba)	135	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
Cadmium (Cd)	< 20	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
Chromium (Cr)	< 20	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
Copper (Cu)	57.0	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
Lead (Pb)	< 20	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
Zinc (Zn)	< 20	ug/L		20	1	EPA 200.8	12/06/2013 12:19	DJSULL1
<b><u>TOTAL DISSOLVED SOLIDS</u></b>								
TDS	36000	mg/L		250	1	SM2540C	12/09/2013 11:21	DSBAKE1
<b><u>TOTAL SUSPENDED SOLIDS</u></b>								
TSS	8.0	mg/L		5	1	SM2540D	12/09/2013 09:13	DSBAKE1

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM



Duke Energy Analytical Laboratory

Mail Code MGO3A2 (Building 7405)  
Lagers Ferry Rd  
N. C. 28078

13339  
Huntersville,  
(704) 875-5245

Fax: (704) 875-4349

1) Project Name <b>MIAMI-FORT NPDES Quarterly (Week 1 - Dec 3, 2013)</b>		2) Phone No:
3) Client <b>Michael Byrd, Tara Thomas, Matthew Hoyt</b>		4) Fax No:
5) Business Unit:	6) Process:	7) Resp. Center To:
8) Project ID:	9) Activity ID:	10) Mail Code:

Analytical Laboratory Use Only			
LIMS # <b>J 13110266</b>	Sample Class <b>NPDES</b>	Samples Originating From	OH <b>X</b>
Logged By <b>DM</b>	Date & Time <b>12/4/13 1355</b>	SAMPLE PROGRAM <b>NPDES X</b>	
Vendor	Cooler Temp (C) <b>8-2</b>		

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DISTRIBUTION  
ORIGINAL to LAB,  
COPY to CLIENT

LAB USE ONLY
11 Lab ID
<b>2A 3A22853</b>
<b>2A 3A22854</b>

Customer to complete appropriate columns to right

12 Chem Desktop No.	13 Sample Description or ID	14 Collection Information			17 Comp.	18 Grab	TDS	TKN, NH3	B, Fe, Mn, As, Ba, Cd, Cr, Cu, Pb, Zn	TSS	Cl, F, SO4	Alkalinity
		Date	Time	Signature								
	Outfall 002	12-3-13	0845	<i>Mark Hager</i>		X	1	1				
	Outfall 608	12-3-13	0905	<i>Mark Hager</i>		X	1		1	1	1	

Customer to sign & date below - fill out from left to right.

1) Relinquished By <i>Mark Hager</i>	Date/Time <b>12/3/13 0930</b>	2) Accepted By <i>[Signature]</i>	Date/Time <b>12/4/13 1355</b>
3) Relinquished By	Date/Time	4) Accepted By	Date/Time
5) Relinquished By	Date/Time	6) Accepted By	Date/Time
7) Relinquished By	Date/Time	8) Accepted By	Date/Time
9) Seal/Locked By <i>Mark Hager</i>	Date/Time <b>12/3/13 0930</b>	10) Seal/Locked Opened By <i>[Signature]</i>	Date/Time <b>12/4/13 1335</b>
11) Seal/Locked By	Date/Time	12) Seal/Locked Opened By	Date/Time

Comments: **ICP-TOT - B, Fe, MN IMS-TRM - As, Ba, Cd, Cr, Cu, Pb, Zn TSS and TDS are 2 liter containers**

Customer, IMPORTANT!  
Please indicate desired turnaround.

22 Requested Turnaround
14 Days _____
*7 Days _____
*48 Hr _____
*Other _____
* Add. Cost Will Apply